

Ignition Interlock Devices and Immobilization:

Phase I Report

A Summary of the Law and Science, a Review of the Literature, and a Prospectus for Further Research

By:

**Adam D. Jacobs,
WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION SAFETY in Conjunction
with the WISCONSIN DEPARTMENT OF HEALTH AND
FAMILY SERVICES**

April 29, 2003

Important note: This report was written before passage of 2003 Wisconsin Act 30 which changed the per se Blood Alcohol Content (BAC) for first offense OWI. The new law, which was implemented beginning on 9/30/03, changed the prohibited BAC from 0.10 to 0.08 and above for first offense OWI.

Chapter One: The Psychology of Drunk Driving and Vehicle Sanctions

A profile of the recidivist drunk driver

Law Professor James Jacobs (1989) notes that: ‘American alcohol consumption is unusual in the high percentage of abstainers. Thus the per-capita alcohol consumption statistic is primarily affected by the drinking behavior of the heaviest 5-10 percent of drinkers, *who account for more than half of all alcoholic beverages consumed*’ (emphasis added).

In understanding and answering questions about IIDs, one must understand the profile of the repeat drunk driver. The recidivist is relatively rare. In Wisconsin in 2000, there were only 24,496 drivers with three or more drunk driving convictions, out of 3.67 million licensed motorists, or less than one per hundred drivers. Those with four or more arrests totaled 7,788, and the totals continue to decline for individuals with more convictions.

However, these statistics reflect only *convictions* for OWI. Some studies have suggested that the average person arrested for DWI has already driven drunk 100-200 times prior to being caught (the work of R.B. Voas touches on this point numerous times) and estimates as to how many impaired miles can be driven before arrest usually conclude in the thousands. Thus some researchers and advocates suggest that a vast majority of those convicted of their first OWI are not truly first-time drunk drivers. Rather, they have already established a pattern of driving drunk, and are only caught because of a traffic violation (causing an accident, swerving across lanes), equipment violation, or because they have tested their luck one too many times.

The fact is, though, that most first-time offenders do not become recidivists. The system of penalties for first time offenders seems to be broadly effective in removing the allure of drunk driving by underscoring its expensive and humiliating side effects (see Dieringer 2001: Phase 3, p. 6). What is essential to grasp is that the *strategy* for dealing with first time offenders is quite different than the strategy for addressing recidivist drunk driving. First time offenders are dealt with by straightforward legal methods outlined in the Dieringer Research Groups report on Alternatives to Incarceration: fines, time in a holding cell while waiting to be picked up, a suspended license, and generally strict recompense. These measures tend to be traumatic, expensive, and embarrassing, making the first time offender very wary of driving drunk again.

Recidivists, on the other hand, have already passed through this gauntlet of corrective measures. They have been undeterred by the initial penalties that keep most offenders from driving drunk again. Because of this, the sanctions against repeat drunk drivers grow more severe, to provide more of a deterrent. For second offenses, jail time becomes a possibility, fines can exceed \$1000, and the length of license revocation doubles. For subsequent offenses, penalties grow still steeper.

Also, the standard of intoxication is lowered for recidivists. A third offender is considered legally intoxicated at .08; for fourth and subsequent offenders, the threshold is .02, or about one drink.¹

However, it may be that the habitual drunk driver is simply not subject to the deterrent effects of the penalties. Short of some truly draconian punishment, this type of offender does not think in terms of future costs. *Because of this irrationality, the IID is intended to be a solution for these kinds of drivers. The IID is supposed to make the smart decisions that the recidivist refuses to make.*

It is eminently important to distinguish between recidivists, and people who have been convicted of one OWI. *However*, first time offenders are not to be taken lightly by any means – they still account for a large majority of OWIs and traffic deaths. Nonetheless, the short-term sanctions applied to these offenders usually stave off future incidences of drinking and driving. These same measures have shown to be quite *ineffective* in dealing with the recidivist. The incentives and preferences that define most first time offenders simply do not generalize to the recidivist population. For example, fines often accumulate to the point where there is no longer any reasonable expectation of immediate or even future payment.

Let us clarify, since there is a tendency to get confused in the terms; clearly, every recidivist was *at one time* a first offender. A first OWI is a significant predictor of subsequent recidivism; *but most first offenders do not recidivate*. The IID, then, is addressing the population who has recidivated and is seen to be unreceptive to the usual treatments.

General characteristics of the recidivist

According to the literature, the recidivist is likely to be:

- Male (85-90 percent)
- White
- Older — mid to late 30s while most OWI arrests occur among younger drivers
- Driving with a BAC far above the legal limit and higher than first-time offenders. Examining Louisiana, Gould & Gould find that the majority of first offenders had BAC below .16, while the majority of recidivists have BAC of .16 or above, with many more recidivists at double or triple the legal limit.
- Involved in other addictive behaviors, especially cigarette smoking

¹ This report was written *before* passage of 2003 Wisconsin Act 30 which changed the *per se* Blood Alcohol Content (BAC) for first offense OWI. The new law, which was implemented beginning on 9/30/03, changed the prohibited BAC from 0.10 to 0.08 and above for first offense OWI.

- Driving drunk on a weekday, and during the morning or afternoon (Berman et al 1987)
- Driving with a suspended or revoked license (Berman et al 1987)

Although these are very general characteristics, they describe a large proportion of recidivists.

However, these characteristics are not good *predictors* of recidivism. After all, most white men in their late 30s are not repeat OWI offenders. So what are the factors that can help to target the driver most likely to repeatedly drive drunk? The strongest predictive factors in recidivism are basic:

- Involvement in previous property crimes and moving violations (Berman et al 1987 found that these two factors were most strongly predictive of future OWIs in Oregon)
- Lack of receptivity and compliance with education and rehabilitation programs
- Age at the time of the first OWI offense – drivers who received their first OWI while younger are more likely to recidivate

In the following research section, though, there is still disagreement over what predicts drunk driving.

Notice that the recidivist profile above suggests that the recidivist is not a young driver. Yet it is certainly true that OWI incidence tends to decrease with age. How can these two facts be reconciled: that the recidivist is older, and that the probability of recidivism decreases with age? The key to this is that the *recidivist often had his first OWI at an early age*. As mentioned above, age at the time of first offense is a strong predictor of non-compliance with rehabilitation and conviction for future OWI (Peck et al 1994).

Research studies have noted that the longer the period of examination, the larger the recidivist population. A major change in Wisconsin state law has been to count all OWI convictions from January 1, 1989 onward. Naturally a larger offender population exists over fourteen years than over a two-year span. In other states, the driving record is cleared after five years. So if a driver was convicted of OWI in 1996, and is charged again in 2002, he will be treated as a first time offender.

Finally, it is worth noting that researchers have often concluded that *recidivism is not simply an all or nothing condition*. Of course, the legal framework tends to draw very sharp and clear lines. But the point is simply that not every second or even third time offender is the same. Some have driven drunk 10 times; some 100 times, and some have done so much more and will continue to do so. There is a scale with ‘minor’ and ‘major’ recidivists.

The public view of drunk driving

When constructing penalties for driving drunk, the severity of punishment should match the seriousness of the crime. However, defining the ‘seriousness of the crime’ can be surprisingly difficult with drunk driving. Very clearly, the driver is putting himself and the public at risk. So, too, is the speeder – he engages in an illegal activity that increases the risks of crashes and mortality in those crashes. But the penalty for speeding (and repeat speeding) is almost always a fine. Penalties for driving while intoxicated are much more severe, and are continually increased (see the subsequent section on The OWI Process).

What is decidedly different is *the stigma attached to drunk driving*. The fact that OWI is a risky behavior is not sufficient to merit the increasingly harsh penalties associated with the crime: there is also a firm societal perception that driving while drunk is wrong, not simply risky, and thus not really comparable to speeding or distracted driving. The needless risk imposed on other drivers is deemed sufficient to merit a stiff penalty.

While some national polls reveal that most people revile drunk driving and approve of both stronger sanctions and stiffer deterrents (such as higher alcohol taxes and lower OWI limits), these measures are complicated political entities to implement. Many people voice support for higher alcohol taxes in polls and vote down these taxes in referenda and elections. The individual who disapproves of driving drunk may occasionally drive drunk, and thus be wary of lower BAC standards. For these and other reasons, the public agenda has shifted towards programs like IIDs, which are seen to address and thwart the repeat offenders who consistently put people at risk.

There are many ways to frame the debate about the severity of drunk driving. One could point out that there is estimated to be one fatality for every 600,000 impaired miles driven. At the same time, this rate is almost 100 times as high as the rate for non-impaired drivers (Ross 1992). Thus drunken driving deaths are too frequent, but simultaneously very infrequent.

Ultimately, the public opinion towards driving while intoxicated is difficult to directly incorporate into a sanction. The subsequent sections examine the four basic functions of criminal punishment when addressing recidivist drunk driving.

Explaining drunk driving – costs and benefits

The question of why people commit crimes is still subject to heated debate. To understand the drinking driver and the effectiveness of IIDs, a brief review of a few theories of criminal behavior is useful.

One of the oldest and simplest methods for explaining crime is an economic model. In this model, every act, legal or illegal, has costs and benefits associated with it. If an individual perceives the potential benefits of an action to be larger than the costs, he will pursue the action. Theft is a straightforward example: if the potential gains of robbery

(money, thrill, future security) are greater than the costs (chance of getting caught, possibility of going to jail or getting hurt in the process of the crime), then the crime is worth the risk.

The typical response to crime in this framework is to make the penalties for crimes swifter and harsher – essentially raising the cost of the action to the point where most crimes are no longer “worth it.” During the 1980s and 1990s this method was employed in steeply increased penalties, parole revocation, and mandatory sentencing laws. The underlying idea is to raise the cost of crime, and thus make people more hesitant about committing crimes. Moreover, this ethos rests upon a notion that harsh punishment prevents recidivism. If an individual still commits a crime, they receive a harsh financial or incarceration penalty that makes future crime highly unlikely.

There are three problems with the above model of criminal behavior. First, different people may perceive costs very differently. Both costs and benefits are very subjective, depending on the situation of the individual. The ‘cost’ of being arrested may be much higher for someone with a family, a lucrative job, or a highly public position in society; similarly, the ‘benefit’ of perpetrating a crime may be higher for someone with less education, a more precarious financial situation, or a looming debt to repay. Thus raising penalties may appear to radically change the costs of crime *to the outside observer*; but to the potential criminal, the difference may be less pronounced.

Second, this model assumes that decisions about illegal behavior (or any behavior) are made with excellent information and long-term calculation. But the potential robber, for example, cannot really possess such detailed data – how much resistance he will meet, how quickly the police will respond, and how happy he will be after the crime. In the face of such limited information, it is hard to even know what the costs and benefits will be.

Most importantly, the economic behavioral model does not provide us with a very compelling explanation of why people drive drunk. The benefits of drunk driving are not very great (aside from getting home faster) and the possible costs are very high – fines, license revocation, a night in jail, prison sentences. If people are ostensibly pursuing pleasure and avoiding pain, drunk driving does not appear to be consistent with this mode of behavior.

Finally, alcohol has physiological effects on the user. In the case of drunk driving, the decision maker is impaired. The ability to reason and extrapolate, even if possessed when sober, is compromised under the effects of alcohol:

“By abstract we mean being able to think in ways that are not directly tied to concrete things. We think abstractly when we interpret the meaning of stories ... chronic drinkers often find these abilities compromised ... It is as if abstract thoughts do not come to mind as easily for the chronic drinker.”

(Kuhn, Swartzwelder and Wilson 1998: p. 40)

However, there is considerable scholarly debate over the degree to which alcohol affects decision-making. Some sociologists have argued that alcohol impairment alone does not cause aggressiveness, boisterousness, or lasciviousness. Consider this excerpt from the book “Alcohol, Drugs, and Society” by Ronald Akers:

"The conventional explanation for why people fight, commit sexual indiscretions, and do other things while drunk that they would not ordinarily do is that alcohol affects the brain center responsible for inhibitions; this causes people to lose civilized control over their baser animal instincts, producing a direct alcohol-caused disinhibition. MacAndrew and Edgerton (1969) find no support for this argument. Rather, they find that the outcome of drunkenness may be no change in behavior, greater inhibition, or lowered inhibition, depending on what the person learns to do under given circumstances.

In and of itself, the presence of alcohol in the body does not necessarily even conduce to disinhibition, much less inevitably produce such an effect ... We must conclude that drunken comportment is an essentially learned affair.

Over the course of socialization, people learn about drunkenness what their society 'knows' about drunkenness; and, accepting and acting upon the understandings thus imparted to them, they become living confirmation of their society's teachings. (MacAndrew and Edgerton 1969: 87-88)"

This is not a denial that drinking will impair the driver. However, according to these researchers, the decision to drink and drive is not caused by poor decision making from excess drinking. Rather, people who drink and drive are taking certain cues from society that this behavior is acceptable.

Explaining drunk driving – an alternative theory

An alternative theory addresses this concern and provides a more coherent explanation of drunk driving: the notion that most crimes are products of insufficient self-control. The first model assumes that any individual is making calculations of costs and benefits, sometimes extrapolating quite far into the future – if I do this, I may get caught, I may go to court, I may be convicted, I may go to jail. In other words, in the economic model of crime is usually the result of rational calculation.

In the self-control model, individuals are sometimes rational; but crimes are committed without rational calculation. This contradicts the television and Hollywood image of elaborate, collaborative heists and carefully planned projects. But there is data to support this hypothesis; and more importantly, it seems to supply a much better explanation of drunk driving. In this lens, drunk driving is seen as an impulsive act, a desire that is acted upon without extensive thought about potential consequences. Given that drunk driving happens when a person is impaired, the theory of impulsive action seems like a

viable explanation of at least some drunk driving. The Dieringer Alternatives report goes so far as to say, “*The Wisconsin respondents agreed that persistent drunk drivers are not rational*” (Dieringer 2001: Phase 3, p. 6).

Within this theory, how does the implementation of IIDs fit? At first glance, one would expect the IID to be a very effective measure in preventing drunk driving. If the individual fails to make the sensible calculation of possible costs and benefits, the IID essentially does the calculating for the person – it judges whether the costs of an individual driving are too high, and bars him from operating his vehicle if they are. Rather than relying on a friend to take away the keys or drive an intoxicated person home, the IID disallows the driver from making an uncalculated decision.

But there may also be a correspondent problem. If the drunk driver lacks self-control and fails to think actions through to possible ends, then it may be that the drunk driver has no qualms about driving a different car, getting someone else to blow into the IID, or otherwise violating the conditions of the IID agreement. In short, assuming that a person needs an IID because of lack of self-control also admits the possibility that he will not conform to the restrictions that the IID imposes. This possibility is addressed later in the review of research.

Empirical support for the self-control hypothesis

Keane, Maxim, and Teevan’s experiment – “Drinking and Driving, Self-Control, and Gender: Testing a General Theory of Crime,” *Journal of Research in Crime and Delinquency*, v. 30.

This team of scholars, working in Canada, attempted to assess the ‘self-control’ theory of crime mentioned above.

The data used was the 1986 Ontario Survey of Nighttime Drivers. In this project, surveys and breath tests were administered at nearly 300 locations across the province. The survey focused on the highest risk time periods for drunk driving, 9 pm to 3 am Wednesday to Saturday. Drivers were pulled over, asked to complete a survey, and asked to submit to a Breathalyzer. No arrests were conducted with the survey, and consequently only 3.4 percent of drivers refused the BAC test.

This study cleverly developed a measure of ‘self-control’ and ‘high-risk behavior.’ Drivers were asked in the survey ‘Out of 100 legally impaired drivers on the road, how many do you think will be stopped by the police?’ (p. 34) Presumably, if the driver thought many would be stopped but drove drunk anyway, then he was aware of the danger but simply failed to exercise the requisite self-control. Also, drivers were questioned as to whether anyone had tried to discourage them from drinking. Similarly, if they had been dissuaded and drove with a prohibited BAC anyway, then this can be seen as a lack of conformity to social norms.

The researchers concluded that, in fact, the self-control theory of crime quite well explained drunk driving. People wearing seatbelts had significantly lower BAC levels than those who did not; people who had been asked by a friend not to drive were more aware of their intoxication but drove anyway. People who thought police would stop more drunk drivers actually drank more than those who thought police would stop fewer. That is, generally, measures of impulsiveness and resistance to social constraints were significant independent variables in predicting whether or not an individual would drive with a prohibited BAC. Drivers were aware of what they were doing, and proceeded in spite of the consequences.

Explaining alcoholism and substance abuse

A distinction has been made between the recidivist and the majority of drunk drivers. The summarized response of focus groups and interviewees in the Alternatives to Incarceration study was that ‘one cannot attack the problem of repeat drunk driving without attacking the offenders’ need for alcohol.’ As such, some theories of alcoholism will be examined to better understand the pathology of the alcoholism as it relates to driving.

A prevailing sociological theory posits that alcoholism and substance abuse generally emerges from an individual’s inability to achieve the goals that society values most highly. Because many people do not have the means to achieve wealth, esteem, or security, the use of alcohol and other drugs allow them to either reject these norms by joining a group with different values, or to alter one’s perception of societal position (hence the often observed notion that people feel sexy or powerful when drunk). Moreover, this theory of dissonance fits with theoretical explanations of criminality. Crime can quickly and superficially grant the individual wealth, esteem, or security, or at least it appears to. A commonly cited study on the criminality of drunk drivers revealed a strong correlation between OWI arrest and prior perpetration of non-traffic crimes (Argeriou et al 1985).

The intractable problem is that many theories exist, and no theory fully explains alcoholism; rather, each has some empirical support, and some explain certain situations better than others. Alcoholism (and substance abuse and addiction generally) is characterized by being very clearly identifiable but stubbornly difficult to resolve.

This pertains to IIDs when considering what incentives and reinforcements (if any) IIDs are exerting upon the offender. For example, one might hypothesize that an IID might exert a shaming influence, altering the recidivist’s behavior in ways that fines and license points may not. However, within the framework of alcoholism as a method of coping with alienation from society, the alcoholic might see the IID as simply one more way in which figures of authority are belittling or misunderstanding him.

Law and the purpose(s) of criminal punishment

The previous section discussed the complication in establishing a scheme of *retribution*. Retribution is simply the eye-for-an-eye method of punishment that does not look at long-term effects: a person is punished for doing wrong, in direct correlation to the acuteness of their action. When a person kills or injures someone while driving drunk, the recourse can clearly be harsh. But when someone is pulled over and *prevented* from harming himself or herself or anyone else, it becomes hard to say what the severity of their crime is.

The other three purposes of criminal punishment are *reform*, the alteration of an offender's behavior; *incapacitation*, rendering the offender unable to perpetrate another crime; and *deterrence*, implementing a firm enough penalty as a disincentive to committing the offense.

Deterrence, in the context of drunk driving, has two separate meanings. There is *general deterrence*, aimed at keeping the population from engaging in risky behaviors. Examples of this are the public relations campaigns focused on seatbelt use and speed enforcement. The other category is *specific deterrence*, focused on the driver who has already committed an infraction and is seen as likely to do so again. IIDs are a more sophisticated form of specific deterrence, compared to enforceable but often ineffective measures such as license revocation.

IIDs are an attempt to mix all four purposes together. The driver receives retribution in the invasiveness of the IID, hampering an activity that he was entitled to beforehand; it tries to change his behavior by reinforcing sober driving and censuring drunk driving; it incapacitates when the driver is over the threshold; and it deters by its omnipresence.

The IID does all of these things in theory. The empirical question is whether it *actually* does any of these things. General deterrence is rarely addressed and unlikely, since public awareness of IIDs and their uses is quite limited. Empirical evidence suggests that reform is not likely via IIDs. Retribution is also dubious, due to implementation problems discussed later in this report.